



























AMSTRAD



CB 901



CHANNEL SELECTOR









AMSTRAD CB 901
MADE TO UK HOME OFFICE
SPECIFICATION MPT1320
DC 12:0V
MADE IN JAPAN

SER. NO. 1 0 0 7







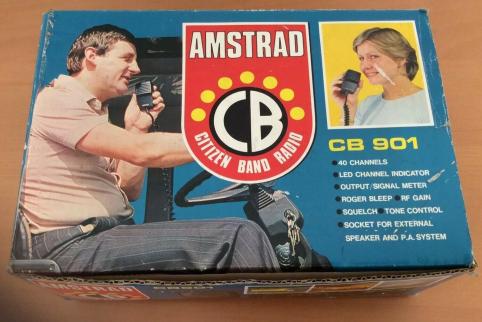


















#### CITIZENS' BAND RADIO LICENCE APPLICATION

To obtain your licence turn to the licence form underneath USE A BALL POINT PEN AND.

I Indicate how many sets you mend this licence to cover.

6. Full postal address including postcode. Enter each line of your address on a separate line where postable

time of application to the clerk. Cheques should be made payable to the "Post Office" and crossed A/o payer. If you

WARNING

Before leaving the counter you should ensure that your licence ! and that it bears the appropriate licence fee stamp/s and date s AMSTRAD CONSUMER ELECTRONICS LTD. 1.7 GARMAN BOAD

LONDON, NIT OUF

GUARANTEE SERVICE

AMSTRAD CONSUMER ELECTRONICS LTD.

LONDON, N17 OUF









TONE

SIGNAL

3 5 7 9 +30
RX TX ROG PA

VOLUME

SOUELCH RF GAIN PA- ROG CHN
CB 901

CHANNEL SELECTOR



# AMSTRAD CB-901

# **SERVICE MANUAL**

### **Transmitter Alignment**

#### **CRYSTAL OSCILLATOR ALIGNMENT 10.240MHz**

Connect Frequency counter to Pin 11 of U1 through 100pF Ceramic Capacitor Adjust L2 for 10.240000MHz +/- 50Hz.

#### **VCO ALIGNMENT**

Set radio to channel 1
Measure voltage between R6/C9 junction and ground
Adjust T1 to read 2.0V
Set radio to Transmit
Adjust CT1 to read 2.0V.
Set radio to channel 40 (TX)
Check for voltage of 4 to 5V

#### **RF POWER ALIGNMENT**

Set radio to channel 20
Set 10dB attenuator switch at 'IN' position.
Preset cores of T2, T3 and T4 3 turns inside from top
Preset core of L4 1 turn counter-clockwise from the bottom
Preset L8 1 turn outside the top
Set unit to Transmit
Adjust T2, T3, T4, L4 and L8 for maximum output on oscilloscope and wattmeter

#### **RF POWER CHECK**

Set radio to channel 20
Set radio to transmit
Check power output is between 3.7W and 4.0W
Check that current drain is less than 1.6A.
Put attenuation switch to 'out' position
Check output power is between 0.2W and 0.4W
Check that current drain is less than 0.7A.
Repeat the steps above for channel 1 and channel 40

#### **FREQUENCY ALIGNMENT**

Set radio to channel 20 Set unit to Transmit Adjust L2 to obtain 27.79125MHz +/- 300hz Check channel 1 for 27.60125MHz +/- 300hz Check channel 40 for 27.99125Mhz +/- 300hz

#### **MODULATION ALIGNMENT**

Set radio to channel 20 Set radio to Transmit Apply 3mV @ 1.25kHz audio input to mic socket Adjust RV3 for deviation for between 0.8kHz and 1.0kHz.

#### RF METER ALIGNMENT

Set 10dB switch out Set unit to Transmit Adjust RV1 to light red LED number 5. Set 10dB switch in All LEDS should now be lit.

## **Receiver Alignment**

#### RECEIVER SENSIVITY ALIGNMENT

Set radio to channel 20
Connect voltmeter to RV2
Inject signal of 27.79125MHz with RF input signal of 4uV @ 1kHz +/- 1.5kHz deviation
Adjust T5, T6, T7, T8, T9, T10 for maximum voltage reading
Reduce RF input signal to zero
Adjust T11 for max noise output at speaker
Apply 1mV RF input signal and re-adjust T11 for max audio output and minimum distortion

#### **SQUELCH ALIGNMENT**

Set squelch control to maximum (clockwise)
Set RF gain control to maximum (clockwise)
Apply 7uV RF signal with 1kHz +/- 1.5kHz deviation
Adjust RV5 so that output from speaker just disappears

#### **S METER ALIGNMENT**

Set radio to channel 20 Apply 100uV from signal generator Adjust RV2 so that green LED lights.

#### **CB901 CIRCUIT DIAGRAM**

